GOVERNMENT OF INDIA
POWER
LOK SABHA

UNSTARRED QUESTION NO:3780
ANSWERED ON:08.12.2016
Environmental Performance of Thermal Power Plants
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Will the Minister of POWER be pleased to state:

(a) whether any measures/initiatives were taken by the Union Government for improving the environmental performance of coal based power stations in the country, if so, the details thereof;

(b) whether any initiatives are proposed to be taken for implementing Clean Development Mechanism (CDM) recommended by TERI recently, if so, the details thereof;

(c) whether all power plants in the country have taken afforestation projects in he nearby areas of the plant for protecting the environment, if so, the details thereof; and

(d) whether any pollution control strategies are followed by the power plants for safer environment, if so, the details thereof?

Answer

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER,
COAL, NEW & RENEWABLE ENERGY AND MINES

(SHRI PIYUSH GOYAL)

(a) : Following measures are taken for improving the environmental performance of Coal based thermal power plants:

I. All thermal power plants require prior environmental clearance from the concerned regulatory authority-Ministry of Environment, Forests & Climate Change (MoEF&CC) or the State Environment Impact Assessment Authority (SEIAA) as the case may be, before initiating activities related to establishment of the power plant.

II. Coal based capacity addition during the 13th Plan period shall be only through super-critical units. Adoption of supercritical technology would help in reduction in per unit emission of particulate matter, SO2, NOx& CO2.

III. Phased retirement of in-efficient and old thermal power generation units has also been taken up. A capacity of about 6010 MW has already been retired as on 31.10.2016.

IV. To facilitate State Utilities/IPPs to replace old & inefficient coal based thermal units with more efficient supercritical units, the Government of India has formulated a policy of automatic transfer of Coal linkage granted to old plants to new super-critical units.

V. Coal cess has been increased from Rs.200/ton to Rs.400/ton to enhance the National Clean Energy Fund (NCEF) to be utilized for promoting clean electricity production that includes renewable sources.

VI. Perform, Achieve & Trade (PAT) Scheme, introduced in 2012, has resulted in improving unit heat rate of thermal units and thereby reduction in emissions.

VII. The norms for emissions/effluents from thermal power plants have been revised by MoEF&CC by imposing stringent emission standards for particulate matter and imposing limits for gaseous emission of SO2 and NOx and water consumption vide notification dated 07/12/2015.

VIII. Directions have been issued by the Central Pollution Control Board under section 18(1) b of Water & Air Acts to the State Pollution Control Boards and Pollution Control Committees for directing 17 categories of highly polluting industries including thermal power plants for installation of online effluent quality and common emission monitoring systems to help track compliance of the discharges of pollutants from these units.

IX. The Government of India has notified the Tariff Policy on 28th January, 2016, which mandates that the thermal power plant(s) including the existing plants, located within 50 km radius of sewage treatment plant of Municipality/local bodies/similar organization shall, in the order of their closeness to the sewage treatment plant, mandatorily use treated sewage water produced by these bodies and the associated cost on this account be allowed as a pass through in the tariff.

(b) : Clean Development Mechanism (CDM) Works on Frameworks and Rules finalized under the United Nations Framework Convention on Climate Change (UNFCCC). Article 6 of the Paris Agreement deals with market mechanism.

(c): (i) All the power plants have commitment to the protection of the environment and maintaining the ecological balance. One of the main thrust areas in this mission is afforestation. Thermal Power Plants (TPPs) undertake afforestation in and around the plant areas (township, green-belt around plant periphery etc.).

(ii) The Govt. of India, Ministry of Power, has introduced the National Environment Management Award since 2008-09 for Coal/Lignite based Thermal Power Plants. Afforestation is one of the key environmental parameters for selection of an Awardee.

(d) : Following measures are taken by Thermal Plants to control Pollution:-

(i) High efficiency Electrostatic Precipitators (ESPs) are installed to capture Particulate Matters (Fly ash) from flue gases.

(ii) Low NOX burners are used for reducing NOx emission from flue gases.

(iii) SO2 emission control achieved through dispersion of flue gases from tall stacks (275 metres) in large size units of 500 MW and above. In sensitive areas, the FGD plants have also been installed as prescribed by MOEF&CC.

(iv) Effluent Treatment Plant is installed in all Thermal Power Plants for treatment of effluents generated from different processes to maintain proper quality of Liquid/Water to be recycled/used for horticulture.

(v) Sewage Treatment Plant (STP) is installed at Thermal power plants to treat sewage/waste water of residential area/township. The treated water, thus produced, is used for horticulture inside the plant boundary.

(vi) Dust extraction and dust suppression systems are provided at Coal handling plant to contain fugitive emission of coal dust.

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